



Manage storage ports

ONTAP 9.11.1 REST API reference

NetApp
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Manage storage ports

Storage ports endpoint overview

Retrieving storage port information

The storage port GET API retrieves all of the storage ports in the cluster.

Examples

1) Retrieve a list of storage ports from the cluster

The following example shows the response with a list of storage ports in the cluster:

```
# The API:
/api/storage/ports

# The call:
curl -X GET "https://<mgmt-ip>/api/storage/ports" -H "accept:
application/hal+json"

# The response:
{
  "records": [
    {
      "node": {
        "uuid": "0530d6c1-8c6d-11e8-907f-00a0985a72ee",
        "name": "node-1",
        "_links": {
          "self": {
            "href": "/api/cluster/nodes/0530d6c1-8c6d-11e8-907f-
00a0985a72ee"
          }
        }
      },
      "name": "0a",
      "_links": {
        "self": {
          "href": "/api/storage/ports/0530d6c1-8c6d-11e8-907f-
00a0985a72ee/0a"
        }
      }
    },
  ]
}
```

```

{
  "node": {
    "uuid": "0530d6c1-8c6d-11e8-907f-00a0985a72ee",
    "name": "node-1",
    "_links": {
      "self": {
        "href": "/api/cluster/nodes/0530d6c1-8c6d-11e8-907f-00a0985a72ee"
      }
    }
  },
  "name": "0b",
  "_links": {
    "self": {
      "href": "/api/storage/ports/0530d6c1-8c6d-11e8-907f-00a0985a72ee/0b"
    }
  }
},
{
  "node": {
    "uuid": "0530d6c1-8c6d-11e8-907f-00a0985a72ee",
    "name": "node-1",
    "_links": {
      "self": {
        "href": "/api/cluster/nodes/0530d6c1-8c6d-11e8-907f-00a0985a72ee"
      }
    }
  },
  "name": "0c",
  "_links": {
    "self": {
      "href": "/api/storage/ports/0530d6c1-8c6d-11e8-907f-00a0985a72ee/0c"
    }
  }
},
{
  "node": {
    "uuid": "0530d6c1-8c6d-11e8-907f-00a0985a72ee",
    "name": "node-1",
    "_links": {
      "self": {
        "href": "/api/cluster/nodes/0530d6c1-8c6d-11e8-907f-00a0985a72ee"
      }
    }
  }
}

```

```

    }
  },
  "name": "0d",
  "_links": {
    "self": {
      "href": "/api/storage/ports/0530d6c1-8c6d-11e8-907f-00a0985a72ee/0d"
    }
  }
},
{
  "node": {
    "uuid": "0530d6c1-8c6d-11e8-907f-00a0985a72ee",
    "name": "node-1",
    "_links": {
      "self": {
        "href": "/api/cluster/nodes/0530d6c1-8c6d-11e8-907f-00a0985a72ee"
      }
    }
  },
  "name": "0e",
  "_links": {
    "self": {
      "href": "/api/storage/ports/0530d6c1-8c6d-11e8-907f-00a0985a72ee/0e"
    }
  }
},
{
  "node": {
    "uuid": "0530d6c1-8c6d-11e8-907f-00a0985a72ee",
    "name": "node-1",
    "_links": {
      "self": {
        "href": "/api/cluster/nodes/0530d6c1-8c6d-11e8-907f-00a0985a72ee"
      }
    }
  },
  "name": "0f",
  "_links": {
    "self": {
      "href": "/api/storage/ports/0530d6c1-8c6d-11e8-907f-00a0985a72ee/0f"
    }
  }
}

```

```

    }
  },
  {
    "node": {
      "uuid": "0530d6c1-8c6d-11e8-907f-00a0985a72ee",
      "name": "node-1",
      "_links": {
        "self": {
          "href": "/api/cluster/nodes/0530d6c1-8c6d-11e8-907f-00a0985a72ee"
        }
      }
    },
    "name": "0g",
    "_links": {
      "self": {
        "href": "/api/storage/ports/0530d6c1-8c6d-11e8-907f-00a0985a72ee/0g"
      }
    }
  },
],
"num_records": 7,
"_links": {
  "self": {
    "href": "/api/storage/ports"
  }
}
}

```

2) Retrieve a specific storage port from the cluster

The following example shows the response of the requested storage port. If there is no storage port with the requested node uuid and name, an error is returned.

```
# The API:
/api/storage/ports/{node.uuid}/{name}

# The call:
curl -X GET "https://<mgmt-ip>/api/storage/ports/0530d6c1-8c6d-11e8-907f-00a0985a72ee/0a" -H "accept: application/hal+json"

# The response:
{
  "node": {
    "uuid": "0530d6c1-8c6d-11e8-907f-00a0985a72ee",
    "name": "node-1",
    "_links": {
      "self": {
        "href": "/api/cluster/nodes/0530d6c1-8c6d-11e8-907f-00a0985a72ee"
      }
    }
  },
  "name": "0a",
  "description": "SAS Host Adapter 0a (PMC-Sierra PM8001 rev. C)",
  "wwn": "500a098003633df0",
  "speed": 6,
  "cable": {
    "part_number": "112-00429+A0",
    "serial_number": "629230774",
    "identifier": "500a0980066e2c01-500a098003633df0",
    "length": "0.5m"
  },
  "state": "online",
  "enabled": true,
  "firmware_version": "01.12.09.00",
  "type": "sas",
  "redundant": true,
  "in_use": true,
  "_links": {
    "self": {
      "href": "/api/storage/ports/0530d6c1-8c6d-11e8-907f-00a0985a72ee/0a"
    }
  }
}
```

Updating a storage port

The storage port PATCH API modifies the port mode for storage/network use and allows the port to be enabled/disabled.

Examples

1) Using an Ethernet port for storage

The following example sets an Ethernet port mode for storage use:

```
# The API:
/api/storage/ports/{node.uuid}/{name}

# The call:
curl -X PATCH "https://<mgmt-ip>/api/storage/ports/0530d6c1-8c6d-11e8-907f-00a0985a72ee/e3a" -H "accept: application/hal+json" -H "Content-Type: application/hal_json" -d '{"mode": "storage"}'

# The response:
{
}
```

2) Disabling a storage port

The following example disables an unused storage port:

```
# The API:
/api/storage/ports/{node.uuid}/{name}

# The call:
curl -X PATCH "https://<mgmt-ip>/api/storage/ports/0530d6c1-8c6d-11e8-907f-00a0985a72ee/e3a" -H "accept: application/hal+json" -H "Content-Type: application/hal_json" -d '{"enabled": "false"}'

# The response:
{
}
```


Retrieve storage ports

GET /storage/ports

Introduced In: 9.6

Retrieves a collection of storage ports.

Related ONTAP commands

- `storage port show`

Learn more

- [DOC /storage/ports](#)

Parameters

| Name | Type | In | Required | Description |
|---------------|---------|-------|----------|---|
| mode | string | query | False | Filter by mode <ul style="list-style-type: none">• Introduced in: 9.8 |
| name | string | query | False | Filter by name |
| enabled | boolean | query | False | Filter by enabled <ul style="list-style-type: none">• Introduced in: 9.9 |
| speed | number | query | False | Filter by speed |
| board_name | string | query | False | Filter by board_name |
| state | string | query | False | Filter by state |
| serial_number | string | query | False | Filter by serial_number |
| part_number | string | query | False | Filter by part_number |
| error.message | string | query | False | Filter by error.message |

| Name | Type | In | Required | Description |
|-------------------------|---------|-------|----------|---|
| error.corrective_action | string | query | False | Filter by error.corrective_action |
| mac_address | string | query | False | Filter by mac_address |
| type | string | query | False | Filter by type <ul style="list-style-type: none"> • Introduced in: 9.9 |
| cable.length | string | query | False | Filter by cable.length |
| cable.identifier | string | query | False | Filter by cable.identifier |
| cable.part_number | string | query | False | Filter by cable.part_number |
| cable.serial_number | string | query | False | Filter by cable.serial_number |
| in_use | boolean | query | False | Filter by in_use <ul style="list-style-type: none"> • Introduced in: 9.9 |
| redundant | boolean | query | False | Filter by redundant <ul style="list-style-type: none"> • Introduced in: 9.9 |
| node.uuid | string | query | False | Filter by node.uuid |
| node.name | string | query | False | Filter by node.name |
| wwpn | string | query | False | Filter by wwpn <ul style="list-style-type: none"> • Introduced in: 9.9 |
| firmware_version | string | query | False | Filter by firmware_version <ul style="list-style-type: none"> • Introduced in: 9.9 |

| Name | Type | In | Required | Description |
|----------------|---------------|-------|----------|---|
| wwn | string | query | False | Filter by wwn |
| description | string | query | False | Filter by description |
| fields | array[string] | query | False | Specify the fields to return. |
| max_records | integer | query | False | Limit the number of records returned. |
| return_records | boolean | query | False | The default is true for GET calls. When set to false, only the number of records is returned. <ul style="list-style-type: none"> • Default value: 1 |
| return_timeout | integer | query | False | The number of seconds to allow the call to execute before returning. When iterating over a collection, the default is 15 seconds. ONTAP returns earlier if either max records or the end of the collection is reached. <ul style="list-style-type: none"> • Default value: 1 • Max value: 120 • Min value: 0 |
| order_by | array[string] | query | False | Order results by specified fields and optional [asc |

Response

Status: 200, Ok

| Name | Type | Description |
|-------------|---------------------------------------|-------------------|
| _links | _links | |
| num_records | integer | Number of records |
| records | array[storage_port] | |

Example response

```
{
  "_links": {
    "next": {
      "href": "/api/resourcelink"
    },
    "self": {
      "href": "/api/resourcelink"
    }
  },
  "records": {
    "board_name": "string",
    "cable": {
      "identifier": "500a098000b6c3f-50000d1703544b80",
      "length": "2m",
      "part_number": "112-00431+A0",
      "serial_number": "616930439"
    },
    "description": "SAS Host Adapter 2a (PMC-Sierra PM8072 rev. C)",
    "firmware_version": "03.08.09.00",
    "mac_address": "string",
    "mode": "storage",
    "name": "2a",
    "node": {
      "_links": {
        "self": {
          "href": "/api/resourcelink"
        }
      },
      "name": "node1",
      "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
    },
    "part_number": "111-03801",
    "serial_number": "7A2463CC45B",
    "speed": "6",
    "state": "online",
    "type": "sas",
    "wwn": "50000d1703544b80",
    "wwpn": "string"
  }
}
```

Error

Status: Default, Error

| Name | Type | Description |
|-------|-------|-------------|
| error | error | |

Example error

```
{
  "error": {
    "arguments": {
      "code": "string",
      "message": "string"
    },
    "code": "4",
    "message": "entry doesn't exist",
    "target": "uuid"
  }
}
```

Definitions

See Definitions

href

| Name | Type | Description |
|------|--------|-------------|
| href | string | |

_links

| Name | Type | Description |
|------|----------------------|-------------|
| next | href | |
| self | href | |

cable

| Name | Type | Description |
|---------------|--------|-------------|
| identifier | string | |
| length | string | |
| part_number | string | |
| serial_number | string | |

error

| Name | Type | Description |
|-------------------|--------|-------------------------|
| corrective_action | string | Error corrective action |
| message | string | Error message |

_links

| Name | Type | Description |
|------|----------------------|-------------|
| self | href | |

node

| Name | Type | Description |
|--------|------------------------|-------------|
| _links | _links | |
| name | string | |
| uuid | string | |

storage_port

| Name | Type | Description |
|------------------|-----------------------|---|
| board_name | string | |
| cable | cable | |
| description | string | |
| enabled | boolean | |
| error | error | |
| firmware_version | string | |
| force | boolean | |
| in_use | boolean | Specifies whether any devices are connected through this port |
| mac_address | string | |
| mode | string | Operational mode of a non-dedicated Ethernet port |
| name | string | |
| node | node | |
| part_number | string | |
| redundant | boolean | Specifies whether all devices connected through this port have a redundant path from another port |
| serial_number | string | |
| speed | number | Operational port speed in Gbps |
| state | string | |
| type | string | |
| wwn | string | World Wide Name |
| wwpn | string | World Wide Port Name |

error_arguments

| Name | Type | Description |
|---------|--------|------------------|
| code | string | Argument code |
| message | string | Message argument |

error

| Name | Type | Description |
|-----------|--|---|
| arguments | array[error_arguments] | Message arguments |
| code | string | Error code |
| message | string | Error message |
| target | string | The target parameter that caused the error. |

Retrieve a storage port

GET /storage/ports/{node.uuid}/{name}

Introduced In: 9.6

Retrieves a specific storage port.

Related ONTAP commands

- `storage port show`

Learn more

- [DOC /storage/ports](#)

Parameters

| Name | Type | In | Required | Description |
|-----------|---------------|-------|----------|-------------------------------|
| node.uuid | string | path | True | Node UUID |
| name | string | path | True | Port name |
| fields | array[string] | query | False | Specify the fields to return. |

Response

Status: 200, Ok

| Name | Type | Description |
|------------|--------|-------------|
| board_name | string | |

| Name | Type | Description |
|------------------|-----------------------|---|
| cable | cable | |
| description | string | |
| enabled | boolean | |
| error | error | |
| firmware_version | string | |
| force | boolean | |
| in_use | boolean | Specifies whether any devices are connected through this port |
| mac_address | string | |
| mode | string | Operational mode of a non-dedicated Ethernet port |
| name | string | |
| node | node | |
| part_number | string | |
| redundant | boolean | Specifies whether all devices connected through this port have a redundant path from another port |
| serial_number | string | |
| speed | number | Operational port speed in Gbps |
| state | string | |
| type | string | |
| wwn | string | World Wide Name |
| wwpn | string | World Wide Port Name |

Example response

```
{
  "board_name": "string",
  "cable": {
    "identifier": "500a0980000b6c3f-50000d1703544b80",
    "length": "2m",
    "part_number": "112-00431+A0",
    "serial_number": "616930439"
  },
  "description": "SAS Host Adapter 2a (PMC-Sierra PM8072 rev. C)",
  "firmware_version": "03.08.09.00",
  "mac_address": "string",
  "mode": "storage",
  "name": "2a",
  "node": {
    "_links": {
      "self": {
        "href": "/api/resourcelink"
      }
    },
    "name": "node1",
    "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
  },
  "part_number": "111-03801",
  "serial_number": "7A2463CC45B",
  "speed": "6",
  "state": "online",
  "type": "sas",
  "wwn": "50000d1703544b80",
  "wwpn": "string"
}
```

Error

Status: Default, Error

| Name | Type | Description |
|-------|-------|-------------|
| error | error | |

Example error

```
{
  "error": {
    "arguments": {
      "code": "string",
      "message": "string"
    },
    "code": "4",
    "message": "entry doesn't exist",
    "target": "uuid"
  }
}
```

Definitions

See Definitions

cable

| Name | Type | Description |
|---------------|--------|-------------|
| identifier | string | |
| length | string | |
| part_number | string | |
| serial_number | string | |

error

| Name | Type | Description |
|-------------------|--------|-------------------------|
| corrective_action | string | Error corrective action |
| message | string | Error message |

href

| Name | Type | Description |
|------|--------|-------------|
| href | string | |

_links

| Name | Type | Description |
|------|----------------------|-------------|
| self | href | |

node

| Name | Type | Description |
|--------|------------------------|-------------|
| _links | _links | |
| name | string | |
| uuid | string | |

error_arguments

| Name | Type | Description |
|---------|--------|------------------|
| code | string | Argument code |
| message | string | Message argument |

error

| Name | Type | Description |
|-----------|--|---|
| arguments | array[error_arguments] | Message arguments |
| code | string | Error code |
| message | string | Error message |
| target | string | The target parameter that caused the error. |

Update a storage port

PATCH `/storage/ports/{node.uuid}/{name}`

Introduced In: 9.11

Updates a storage port.

Related ONTAP commands

- `storage port modify`
- `storage port enable`
- `storage port disable`

Learn more

- [DOC /storage/ports](#)

Parameters

| Name | Type | In | Required | Description |
|-----------|--------|------|----------|-------------|
| node.uuid | string | path | True | Node UUID |
| name | string | path | True | Port name |

Request Body

| Name | Type | Description |
|-------------|-----------------------|-------------|
| board_name | string | |
| cable | cable | |
| description | string | |
| enabled | boolean | |

| Name | Type | Description |
|------------------|-----------------------|---|
| error | error | |
| firmware_version | string | |
| force | boolean | |
| in_use | boolean | Specifies whether any devices are connected through this port |
| mac_address | string | |
| mode | string | Operational mode of a non-dedicated Ethernet port |
| name | string | |
| node | node | |
| part_number | string | |
| redundant | boolean | Specifies whether all devices connected through this port have a redundant path from another port |
| serial_number | string | |
| speed | number | Operational port speed in Gbps |
| state | string | |
| type | string | |
| wwn | string | World Wide Name |
| wwpn | string | World Wide Port Name |

Example request

```
{
  "board_name": "string",
  "cable": {
    "identifier": "500a0980000b6c3f-50000d1703544b80",
    "length": "2m",
    "part_number": "112-00431+A0",
    "serial_number": "616930439"
  },
  "description": "SAS Host Adapter 2a (PMC-Sierra PM8072 rev. C)",
  "firmware_version": "03.08.09.00",
  "mac_address": "string",
  "mode": "storage",
  "name": "2a",
  "node": {
    "_links": {
      "self": {
        "href": "/api/resourcelink"
      }
    },
    "name": "node1",
    "uuid": "1cd8a442-86d1-11e0-ae1c-123478563412"
  },
  "part_number": "111-03801",
  "serial_number": "7A2463CC45B",
  "speed": "6",
  "state": "online",
  "type": "sas",
  "wwn": "50000d1703544b80",
  "wwpn": "string"
}
```

Response

Status: 200, Ok

Error

Status: Default

ONTAP Error Response Codes

| Error Code | Description |
|------------|--|
| 17891328 | Port operation "<operation>\\" failed on port \"<name>\". This might indicate a hardware error, an illegal request, or an aborted command.</name></operation> |
| 17891329 | Port "<name>\\" is invalid.</name> |
| 17891330 | Port operation "<operation>\\" failed on port \"<port>\\" because it is not supported on this port type.</port></operation> |
| 17891331 | Cannot complete operation on port "<port>\". The status of the port is not available.</port> |
| 17891332 | Port operation "<operation>\\" failed on port \"<port>\". The port is not offline.</port></operation> |
| 17891333 | Port operation "<operation>\\" failed on port \"<port>\". The port is already offline.</port></operation> |
| 17891334 | Port operation "<operation>\\" failed on port \"<port>\". One or more devices on the port is currently being sanitized.</port></operation> |
| 17891338 | Device operation "<operation>\\" failed on port \"<name>\". Some devices can only be accessed through this port. Disabling this port might cause multiple device failures.</name></operation> |
| 17891339 | Device operation "<operation>\\" failed on port \"<name>\". Some devices can only be accessed through this port. Disabling this port might cause multiple device failures. Use the \"-force\" parameter to ignore checks and <operation>the port.</operation></name></operation> |
| 17891344 | Device operation "<operation>\\" failed on port \"<name>\\" because the port is in use.</name></operation> |
| 17891345 | Device operation "<operation>\\" failed on port \"<name>\\" because the port is in use. Use the \"-force\" parameter to ignore checks and <operation>the port.</operation></name></operation> |
| 17891346 | Port "<name>\\" is already enabled.</name> |
| 17891347 | Port "<name>\\" is already disabled.</name> |
| 17891350 | Port "<name>\\" is not a valid storage Ethernet port.</name> |
| 17891350 | Port "<port>\\" is not a valid storage Ethernet port.</port> |

| Error Code | Description |
|------------|---|
| 17891352 | Port operation "<operation>" failed on port \"<name>\". Reboot node \"<node>\" to recover.</node></name></operation> |
| 17891353 | Unable to enable port "<port>" because it is in network mode.</port> |
| 17891354 | Unable to disable port "<port>" because it is in network mode.</port> |
| 17891355 | Port operation "<operation>" failed on port \"<name>\" because it is not supported on dedicated ports.</name></operation> |
| 17891356 | Unable to <operation>port \"<port>\" when setting mode to \"<mode>\".</mode></port></operation> |

| Name | Type | Description |
|-------|-------|-------------|
| error | error | |

Example error

```

{
  "error": {
    "arguments": {
      "code": "string",
      "message": "string"
    },
    "code": "4",
    "message": "entry doesn't exist",
    "target": "uuid"
  }
}

```

Definitions

See Definitions

cable

| Name | Type | Description |
|---------------|--------|-------------|
| identifier | string | |
| length | string | |
| part_number | string | |
| serial_number | string | |

error

| Name | Type | Description |
|-------------------|--------|-------------------------|
| corrective_action | string | Error corrective action |
| message | string | Error message |

href

| Name | Type | Description |
|------|--------|-------------|
| href | string | |

_links

| Name | Type | Description |
|------|----------------------|-------------|
| self | href | |

node

| Name | Type | Description |
|--------|------------------------|-------------|
| _links | _links | |
| name | string | |
| uuid | string | |

storage_port

| Name | Type | Description |
|-------------|-----------------------|-------------|
| board_name | string | |
| cable | cable | |
| description | string | |
| enabled | boolean | |

| Name | Type | Description |
|------------------|-----------------------|---|
| error | error | |
| firmware_version | string | |
| force | boolean | |
| in_use | boolean | Specifies whether any devices are connected through this port |
| mac_address | string | |
| mode | string | Operational mode of a non-dedicated Ethernet port |
| name | string | |
| node | node | |
| part_number | string | |
| redundant | boolean | Specifies whether all devices connected through this port have a redundant path from another port |
| serial_number | string | |
| speed | number | Operational port speed in Gbps |
| state | string | |
| type | string | |
| wwn | string | World Wide Name |
| wwpn | string | World Wide Port Name |

error_arguments

| Name | Type | Description |
|---------|--------|------------------|
| code | string | Argument code |
| message | string | Message argument |

error

| Name | Type | Description |
|-----------|--|-------------------|
| arguments | array[error_arguments] | Message arguments |

| Name | Type | Description |
|-------------|-------------|---|
| code | string | Error code |
| message | string | Error message |
| target | string | The target parameter that caused the error. |

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